

Appl. No. 10/526,892
Amdt. dated October 10, 2007
Reply to Office Action of July 17, 2007

Amendments to the Drawings:

The attached sheet of drawings includes changes to Fig. 3. This sheet, which includes Fig. 3, replaces the original sheet including Fig. 3. In Figure 3, Stage 4, the first locking ball 17 is deleted.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

The specification, claims 1 and 3, and Fig. 3 (Stage 4) are amended. Claim 1 is amended to replace the parentheses with commas. Paragraphs [0040] and [0042] are amended to refer to “a second (hard) locking ball 18” rather than “second locking ball 18.” Support for this amendment can be found on Page 2, line 27 of the PCT publication corresponding to the present application (WO 2004/022907). Paragraph [0040] is amended to read “increasing drillstring fluid pressure will force the (deformable) activating ball 15 downwardly through the seat 14 and eject the first locking ball 17 (Fig. 3, Stage 3).” Support for this amendment can be found in Stage 3 of Figure 3 of the application as filed.

Stage 4 of Figure 3 of the application as filed contains an error which consists of showing locking ball 17 falling through the tool after it had been ejected (Stage 3), which is clearly impossible. The drawing amendment with replacement Figure 3 provided herein shows the corrected situation in which only the second (hard) locking ball 18 falls through the tool. As a result of this amendment to Figure 3, paragraph [0040] is further amended to recite “the second (hard) locking ball 18 then falls downwardly through the valve seat 14.” Support for this amendment can be found in Stage 4 of Figure 3 of the application as filed.

The final sentence of paragraph [0042] has been brought into consistency with corrected Figure 3, Stage 4.

Claim 3 is amended to remove the incorrect statement that both balls 17 and 18 fall through the tool. Support for this amendment can be found in Stages 3 and 4 of Figure 3. Applicant respectfully submits that the foregoing amendments and corrections to the specification, claims and drawings correct errors immediately evident to persons having ordinary skill in the art. For example, it would be clear to the skilled person that the locking ball 17 cannot exit the downhole tool as shown in Stage 3 of Figure 3, and then reenter the tool as shown in previous Stage 4 of Figure 3, such that the amended description, claims and drawings are the only reasonable interpretation of the present application. Applicant respectfully submits that no new matter is added and requests favorable reconsideration.

Claim Rejections – 35 USC § 112

The Office Action rejected claims 1-6 under Section 112, first paragraph, as failing to comply with the enablement requirement. Applicant respectfully submits that the specification provides an enabling disclosure of the invention as claimed. The Examiner is directed to the foregoing amendments which correct an obvious error in the specification recognized by the Examiner who questioned how both balls 17 and 18 can fall down the tubing.

Applicant further submits that claims 1, 2 and 4 to 6 as filed are fully supported by the description and drawings even before the amendments and corrections offered in this response have been filed. It is only original claim 3, relating to the resetting of the tool, that requires amendment in view of the Examiner's enablement objection. Applicant, therefore, respectfully submits that the amendments herein overcome the Examiner's objection that claims 1 to 6 fail to comply with the enablement requirement.

Claim Rejections – 35 USC § 102

The Office Action rejected claims 1-6 under Section 102(e) as being anticipated by WO02/061236. Applicant submits that the following feature recited in claim 1 is not disclosed in WO02/061236:

said by-pass port means being arranged above the valve seat so as to allow a locking ball, when launched from the surface after the valve seat has received the activating ball, to partially block the port means and thereby initiate flushing-out of any drillstring fluid debris above the valve seat via the port means.

The port 32 of WO02/061236 is either entirely blocked by ball 40 or not blocked at all. The port 32 of WO02/061236 cannot be partially blocked to initiate flushing out of drillstring fluid. Applicant, therefore, submits that the invention defined by claim 1 is novel over WO02/061236. The above identified feature of claim 1 provides the advantage that by partially blocking the by-pass port, fluid pressure in the drillstring can be increased over and above the

situation in which both by-pass ports are unblocked in order to increase the pressure to flush out the debris. This cannot be achieved with the apparatus of WO02/061236. Applicant submits that the invention defined by claim 1 would not have been obvious from the apparatus of WO02/061236.

In view of the foregoing amendments and remarks, Applicant respectfully submits that the pending claims are in condition for allowance. Applicant respectfully requests that a timely Notice of Allowance be issued in this case. If there are any remaining issues preventing allowance of the pending claims that may be clarified by telephone, the Examiner is requested to call the undersigned.

Respectfully submitted,

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